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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷: C07K 7/08, 14/78, A61K 38/39, A61P 25/28	A3	(11) International Publication Number: WO 00/18801 (43) International Publication Date: 6 April 2000 (06.04.00)
(21) International Application Number: PCT/DK99/00500 (22) International Filing Date: 23 September 1999 (23.09.99) (30) Priority Data: PA 1998 01232 29 September 1998 (29.09.98) DK PA 1998 00592 29 April 1999 (29.04.99) DK (71)(72) Applicants and Inventors: RØNN, Lars, Christian, B. [DK/DK]; Rektorparken 14, 3.th., DK-2450 København SV (DK). BOCK, Elisabeth [DK/DK]; Tonysvej 20, DK-2920 Charlottenlund (DK). HOLM, Arne [DK/DK]; Skodsborgparken 20, 2.tv., DK-2942 Skodsborg (DK). OLSEN, Marianne [DK/DK]; Mosevej 5, DK-4000 Roskilde (DK). ØSTERGAARD, Søren [DK/DK]; Borrebyvej 21, DK-2700 Brønshøj (DK). JENSEN, Peter, H. [DK/DK]; Ahlefeldtsgade 18A, 1.th., DK-1359 København (DK). POULSEN, Flemming, M. [DK/DK]; C.F. Richsvej 99A, 1.tv., DK-2000 Frederiksberg (DK). SOROKA, Vladislav [UA/DK]; Tuborgvej 58, 1.tv., DK-2900 Hellerup (DK). RALETS, Igor [UA/DK]; Nørre Allé 8, 111, DK-2200 København N (DK). BEREZIN, Vladimir [UA/DK]; Nørrebrogade 223, 1.th., DK-2200 København N (DK). (74) Agent: PATRADE A/S; Aaboulevarden 21, DK-8000 Aarhus C (DK).		(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GB, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> (88) Date of publication of the international search report: 13 July 2000 (13.07.00)
(54) Title: NCAM BINDING COMPOUNDS (57) Abstract The invention provides novel compounds which are capable to stimulate the proliferation or/and the outgrowth from cells presenting the neural cell adhesion molecule (NCAM). Additionally, the invention relates to pharmaceutical compositions, medicaments and methods for treatment of normal, degenerated and damaged NCAM presenting cells.		

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/DK 99/00500

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C07K 7/08, C07K 14/78, A61K 38/39, A61P 25/28
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

REG, CAPLUS, WPI, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	US 5840689 A (JOANNE K. DANILOFF), 24 November 1998 (24.11.98) --	1-86
P,X	Biochem. J., Volume 340, 1999, Ken-ichiro et al, "An IKLLI-containing peptide derived from the laminin alpha1 chain mediating heparin-binding, cell adhesion, neurite outgrowth and proliferation, represents a binding site for integrin alpha3beta1 and", page 119 - page 126, see LA5 or LA5L --	45-51
A	WO 9409808 A1 (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA), 11 May 1994 (11.05.94), see seq 10 --	12-21

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B" earlier document but published on or after the international filing date	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

27 March 2000

Date of mailing of the international search report

03-04-2000

Name and mailing address of the ISA/

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Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 99/00500

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO9632959 A1 (ACORDA THERAPEUTICS), 24 October 1996 (24.10.96), see claims 4-5 -----	1-86

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK99/00500**Box I** Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 75-80, 82-84
because they relate to subject matter not required to be searched by this Authority, namely:
see next sheet
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such
an extent that no meaningful international search can be carried out, specifically:

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all
searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment
of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report
covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (1)) (July 1992)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 99/00500

Claims 75-80, 82-84 relate to methods of treatment of the human or animal body by surgery or by therapy/ diagnostic methods practised on the human or animal body/Rule 39.1.(iv). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds/compositions.

Form PCT/ISA/210 (extra sheet) (July 1992)

INTERNATIONAL SEARCH REPORT
Information on patent family members

02/12/99

International application No.
PCT/DK 99/00500

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
US	5840689	A	24/11/98	NONE	
WO	9409808	A1	11/05/94	AU 2895192 A US 3653080 A	24/05/94 04/04/72
WO	632959	A1	24/10/96	NONE	

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(51) International Patent Classification: C07K 7/08, A61K 38/39, A61P 25/28, C07K 14/78	A3	(11) International Publication Number: WO 00/18801 (43) International Publication Date: 06 April 2000 (06.04.2000)
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(54) Title: NCAM BINDING COMPOUNDS (54) Titre: COMPOSES SE LIANT AUX N-CAM (57) Abstract <p>The invention provides novel compounds which are capable to stimulate the proliferation or/and the outgrowth from cells presenting the neural cell adhesion molecule (NCAM). Additionally, the invention relates to pharmaceutical compositions, medicaments and methods for treatment of normal, degenerated and damaged NCAM presenting cells.</p> (57) Abrégé <p>L'invention concerne des nouveaux composés capables de stimuler la prolifération et/ou la croissance des neurites à partir des cellules présentatrices de la molécule d'adhérence cellulaire neuronale (N-CAM). Par ailleurs, l'invention porte sur des compositions pharmaceutiques, des médicaments et des méthodes de traitement de cellules présentatrices de N-CAM, normales, dégénérées et endommagées.</p>		